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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/858,218	05/10/97	CHOY	E

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MM11/0518

EXAMINER STANDIG, B

ART UNIT 2833	PAPER NUMBER 5
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DATE MAILED: 05/18/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/858,218

Applicant(s)

Choy et al.

Examiner

Barry Standig

Group Art Unit

2833



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-17 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2833

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.
2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Specification

3. The disclosure is objected to because of the following informalities: at page 2, line 24, "CUP" should read --CPU--, at page 7, line 22, after "26." delete "The" and insert --Referring to figures 5A and 5B, as shown, the--. At page 16, line 2, "CUP" should read --CPU--. Appropriate correction is required.

Claim Objections

4. Claims 11 and 13 are objected to because of the following informalities: At claim 11, line 5, "supper" should read --upper--; at claim 13, line 7, "fist" should read --first--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2833

6. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1

At claim 1, the phrase: "oppositely aligned with each other in a front-to-end direction in a head-to-head state." is vague and confusing. It is suggested that applicant delete the word, "respectively" and insert --comprising-- to clearly delineate the preamble from the body of the claim.

Claim 2

At claim 2, the phrase, "a normal manner" is vague and confusing.

Claim 3 and Claim 4

At claim 3, line 3 and at claim 4, line 2, after "one" insert --contact-- to more clearly define invention. At claim 4, line 3, after "other" insert --contact--.

Claim 8

At claim 8, line 1, after "type" insert --compared--, at line 12, the phrase, "a normal manner" is vague and confusing. At lines 8-10, the phrase "when said key is on an opposite side with regard to a center line of the main body in comparison with another key of the standard connector" is vague and confusing. Perhaps, instead of "key", --key opening-- might be more descriptive.

Art Unit: 2833

Claims 10-15

In claims 10-15 where applicant has used the symbol “/” it is requested that this be changed to the word --or--. At claim 13, line 3, the phrase, “a normal installation condition” is vague and confusing.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-6 as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by Muzslay(4,618,196).

Claim 1

Muzslay shows a first connector 136 with contacts 133 mated to a second connector 134 with contacts 132 aligned in a head to head state (see figure 6). Female socket 132 corresponds to female socket 133, so the plugs that are inserted are oppositely aligned with each other.

Claim 2

The first module could be a plug and as explained above, in order for the contacts to align, one plug will be inserted into the female receptacle in a right-side-up manner and the other plug or module will be inserted into the other female receptacle in an upside-down manner.

Art Unit: 2833

Claim 3

Plated through holes 142, 144 provide traces that contact the contacts 132 and 133 (see column 5, lines 9-12).

Claim 4

Figure 6 clearly shows one contact 132 in an upper passageway of one connector and the other contact 133 in a lower passageway of the other connector

Claim 5

Figure 6 shows the plated through holes 142 and 144 as being parallel to each other and extend in the front-to-end direction.

Claim 6

The first connector includes a first key which is opposite to a second key of the second connector in said front-to-end direction (see column 5, lines 14-26).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 7 as best understood is rejected under 35 U.S.C. 103(a) as being unpatentable over Muzslay (4,618,196). The feature of an elongated recess along a lower portion of the second main body of the second connector is a broadly defined feature and applicant has not

Art Unit: 2833

demonstrated criticality of the recess or included the function of the recess which would be needed in order to overcome the reference.

11. Claims 8 and 9 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al.(5,514,002) in view of Coteus et al. (5,688,147). Cheng shows an electrical connector assembly and contacts having a housing 10 including a main body defining upper row passageways 14 and lower row passageways 16 for receiving a plurality of upper contacts 60 and lower contacts 80 therein, said housing defining a central slot 12 for receiving a module therein. Cheng does not show the key. Coteus shows a key opening 10 positioned in the central slot 14 that is movable between several positions and locations (see figures 7-9). It would have been obvious to one ordinarily skilled in the art at the time of the invention to use a key/key opening as taught by Coteus in the Cheng connector assembly because this would allow for a large variation in the size of the cards or modules that can be connected within the assembly (see column 1, lines 49-55).

12. Claims 10-17 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al.(5,514,002) in view of Coteus et al. (5,688,147) and Dodds(4,295,695). Dodds shows an edge connector assembly for interconnecting two printed circuit boards using flexible film with contact areas 12 wherein the concept of maintaining one-to-one correspondence on opposite sides of a board via circuit traces for the contact areas 12 (see figure 2). It would have been obvious to one ordinarily skilled in the art at the time of the invention to use the contact area arrangement of Dodds in the Cheng/Coteus device as this would provide for greater connectability (see column 1, lines 60-63). Applicant is requested to revise

Art Unit: 2833

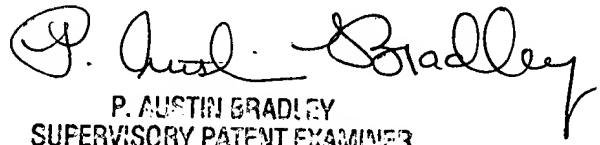
the claims so that the pad location on the mother board and their disclosed manner of use would define over the cited references.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Barry Standig whose telephone number is (703) 308-1727. The examiner can normally be reached on Monday-Thursday from 8:30 to 6:00. The examiner can also be reached on alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley, can be reached on (703) 308-2319. The fax phone number for this Group is (703) 308-7722. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1782.

Barry M. L. Standig/bmls

May 11, 1998


P. AUSTIN BRADLEY
SUPERVISORY PATENT EXAMINER
GROUP 2833